

**AMS CHANGE REQUEST/DIRECTIVE**

1. CR/DIR Number: AMS-02 / D-21

2. Date: 03/31/2006

3. Change Title: Phase II Flight Safety Hazard Report Baseline - AMS-02-F05

4. Cost Impact: \_\_\_\_\_

5. Document(s) Affected: JSC 49978, "Phase II Flight Safety Data Package for the Alpha Magnetic Spectrometer – 02 (AMS-02)"

6. Weight Impact:

7. Schedule Impact:

8. Other Impacts:

## 9. Description Of Change:

Baseline Hazard Report (HR) AMS-02-F05 to be included in Appendix A of JSC 49978, "Phase II Flight Safety Data Package for the Alpha Magnetic Spectrometer – 02 (AMS-02)". This hazard report is a unique subdocument within JSC 49978 that will be processed through the Payload Safety Review Panel (PSRP). Reviewed as a discrete unit by the PSRP, this subdocument will be a "living" subdocument that will be modified as the AMS-02 Project progresses to account for any changes that occur in design and operations and closures of verifications. JSC 49978 (complete with this HR) will document compliance with the safety requirements of NSTS 1700.7B and the ISS addendum, and will be submitted to the PSRP a minimum of 45 days prior to PSRP Review of the completed Safety Data Package (JSC 49978)

## 10. Justification:

HR AMS-02-F05, "Rupture of AMS-02 Pressurized Systems: TRD Gas System (Xe & CO<sub>2</sub>), Cryomagnet Warm Helium Gas System, Tracker Thermal Control System, Thermal Control Systems, Cryocooler" provides a complete description of the AMS-02 Payload hazard associated with pressure systems. This HR is a part of a detailed safety analysis of the AMS-02 payload and all its detectors and subsystems that is presented in the complete JSC 49978. The HR documents that the payload meets the requirements of the current version of NSTS 1700.7 and NSTS 1700.7 ISS Addendum, para. 301; and is required to be submitted as part of the SDP (JSC 49978) to the PSRP 45 days prior to the Phase II Flight Safety Review. This HR must be signed and approved by the AMS-02 Project Manager prior to submittal for PSRP Review.

## 11. Action Required (To Implement This Change):

The SDP and its hazard reports will be base-lined via the Change Request (CR) process through the AMS-02 Configuration Control Board (CCB). Configuration management (CM) for subsequent revisions to the SDP document body and the hazard reports shall also be governed by the CR process through the AMS-02 CCB. The SDP document body has previously been submitted to the AMS-02 CCB under CR AMS-02/D-015. This hazard report, with its associated hazards, will be baselined through the AMS-02 CCB and any revisions will also be processed through to final approval of both AMS-02 Project Manager's signature and PSRP Chairman signature

12. Initiator/Organization: Leland Hill/ESCG

13. Organization Approval: EA

## 14. Disposition:

- ☐ Deferred  
☒ Approved  
☐ Approved With Changes Indicated  
☐ Disapproved

15. Approval: \_\_\_\_\_

CCB Chairman/Date

**AMS CHANGE REQUEST/DIRECTIVE  
EVALUATOR LIST**

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3. Title:

☒ Configuration Control Board (CCB) Members

Flight Crew Operations Directorate (CA)

☐ Astronaut Office (CB)

☐ Mission Operations Directorate (DA)

Engineering Directorate (EA)

☐ Crew and Thermal Systems Division (EC)

☐ Structural Engineering Division (ES)

☐ Energy Systems Division (EP)

☐ Avionics Systems Division (EV)

☐ Automation, Robotics, & Simulation Division (ER)

☐ Space Shuttle Program (MA)

☐ Space Shuttle Flight Operations & Integration Office (MO)

International Space Station Program Office (OA)

☐ Vehicle Office (OB)

☐ Program Integration Office (OM)

☐ Mission Integration & Operations Office (OC)

☒ Payloads Office (OZ)

Other NASA Centers

☐ Goddard Space Flight Center (GSFC)

☐ Marshall Space Flight Center (MSFC)

☐ Kennedy Space Center (KSC)

Others

☒ Mike Capell, MIT

☒ Stephen Harrison, SCL

☒ Marco Molina, CGS

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☒ Klaus Lübelmeyer, RWTH Aachen

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